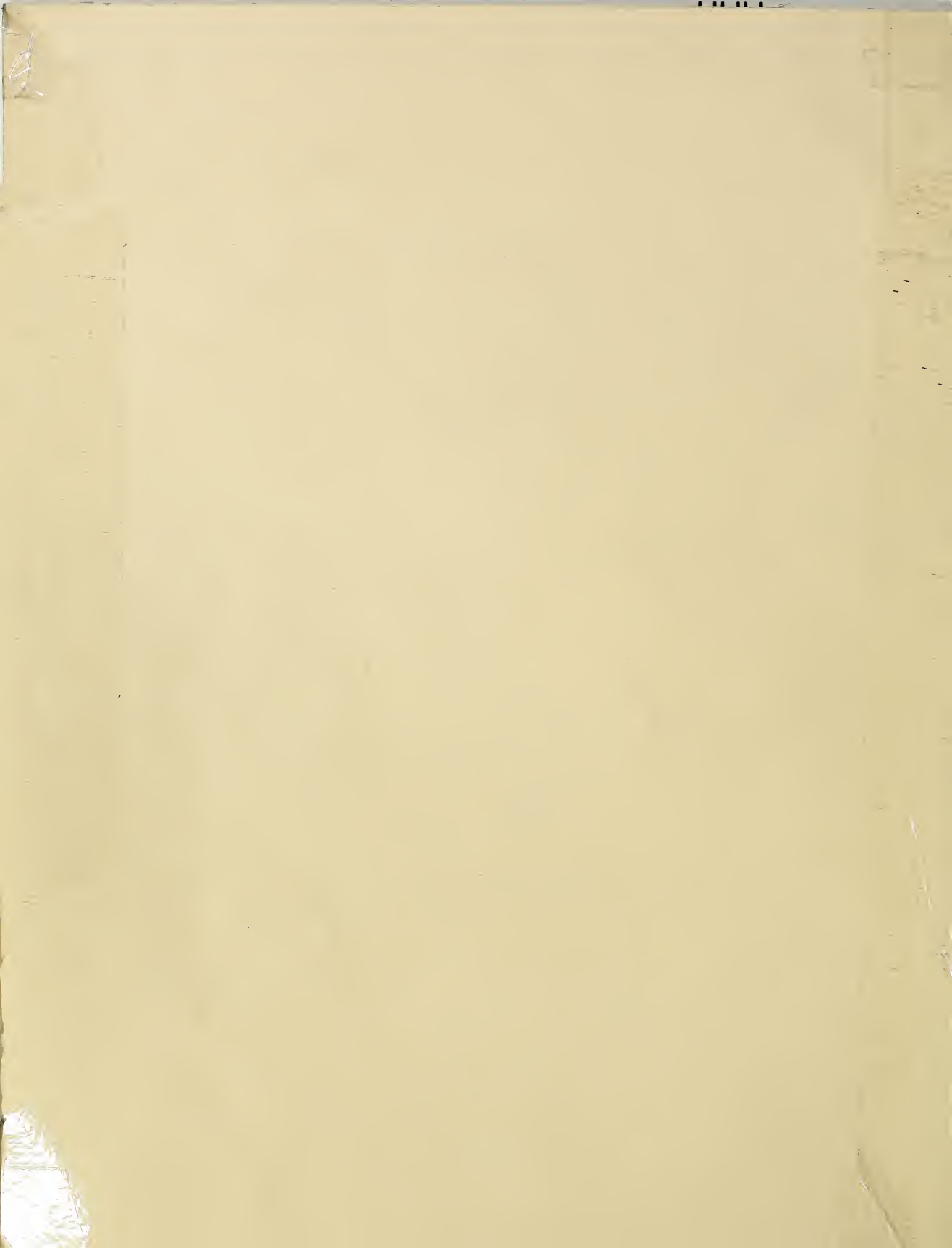


## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



F-66  
cm 2

# FOOD NEWS

**FOR CONSUMERS** United States Department of Agriculture Volume 5 Number 1 Spring 1988

MIS 10 75

## WHEN AN OLDER PERSON NEEDS HELP IN THE KITCHEN

(STORY P 8)



Freezer  
"Blahs"

New Look  
in Foods

Kids Bake  
Bread

# FOOD NEWS

FOR CONSUMERS

Spring 1988  
Vol. 5, No. 1

Contents of this magazine are intended for re-use. No permission is necessary.

This magazine is published by the U.S. Department of Agriculture, Food Safety and Inspection Service.

**Administrator**

Lester M. Crawford

**Associate Administrator**

Ronald J. Prucha

**Director, Information and Legislative Affairs**

Jane Adams

**Chief, Public Awareness Office**

Laura Fox

**Editor**

Mary Ann Parmley  
(202) 447-9351

**Art Director**

Richard J. Barnes

**Cover Illustration**

Barry Moyer

**Photography**

Lester Shepard

*Food News for Consumers* is published four times a year. Subscription price is \$5.00 (domestic) or \$6.25 (foreign) per year. Send subscription orders to: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Send comments and inquiries to: Editor, *Food News for Consumers*, FSIS/ILA, Room 1165 South, U.S. Department of Agriculture, Washington, D.C. 20250. Telephone: (202) 447-9351.

## Ask the Consumer Advisor



Dear Consumer Advisor:

I volunteer for Meals on Wheels, which takes hot, nutritious meals to the homes of elderly Americans. But I'm concerned about those the program doesn't reach. What is USDA doing to ensure that senior citizens have a healthy diet?

Dear Reader:

Nutrition and health are of growing concern to all of us as our population ages. To help ensure that people's nutritional needs are met, USDA sets dietary guidelines for all *healthy* Americans, including the elderly. Many older Americans live on tight budgets, so USDA has also put out a booklet called THRIFTY MEALS FOR TWO, based on the dietary guidelines. Printed in large type, the booklet explains planning and cooking low-cost, healthy meals. Senior citizens with special health problems, of course, still need to consult their doctor or a dietitian about particular needs.

USDA-supplied foodstamps benefit many elderly persons, and nutrition education is taught by USDA extension agents at government-supported senior citizen meal sites. The extension service also trains volunteers in the special nutrition needs of older Americans. These volunteers make home visits to work with the elderly and their care givers.

Further, USDA gives commodity and funding support to many programs, including some Meals on Wheels operations, that provide low-cost, nutritious meals to the elderly. These programs are administered through the U.S. Department of Health and Human Services and state agencies on the aging.

We know a lot about what constitutes a nutritious diet, but not much is known about the effect of nutrition on the aging process. Researchers at the USDA Research Center on Aging at Tufts University are working to change that. Among work underway there is a time study to investigate calcium intake and subsequent bone loss as an individual ages. Tufts scientists are also looking at diet in the development of cataracts, the leading cause of blindness among the elderly.

But we *don't* need further research to tell us that one way to help ensure a healthy diet in our later years is to adopt good nutritional practices now. Following USDA's dietary guidelines is a good beginning.

Sincerely,

*Ann Collins Chadwick*

ANN COLLINS CHADWICK, Director  
Office of the Consumer Advisor  
Phone: (202) 382-9681

# CONTENTS



## Consumer Education

### Hotline Calling — The Freezer "Blahs"

Can't face another frozen entree for supper? Our hotline home economists have the scoop on freezing and refrigerating food for top quality and safety ..... p. 4

## Food Safety

### Inspecting the Mysteries of Chinatown's Markets

Sue Winkler, USDA compliance officer in San Francisco, leads an inspection tour of small food shops in this historic sector ..... p. 6

## Special Feature

### When an Older Person Needs Help in the Kitchen

How to tell when someone you're assisting needs more help in the kitchen plus down-to-earth tips on how to help them ..... p. 8

## Health and Nutrition

### What's New in Foods?

No-calorie pastry flour? Chocolate-flavored peanut butter? What will they invent next? ..... p. 10

### Microwave Magic for Meat and Poultry

Step-by-step instructions for succulent roasts, perfect bacon and casseroles where meat and vegetables are done at the same time ..... p. 12

## News Wires

It's a "Gold Banner" Day for pork when Lundy introduces this new trichina-tested brand in the Washington, D.C. area ..... p. 13

Chik-Chek fails USDA tests ..... p. 13

USDA scientist explains why the refrigerator can't always protect food ..... p. 14

## The Children's Page

Use this great, simplified recipe to make fresh whole-wheat bread in a bag. Learn how yeast makes bread rise ..... p. 15



### Hotline Calling — The Freezer “Blahs”

A review of USDA's Meat and Poultry Hotline calls shows that many people have questions on freezer and refrigerator storage in late winter. The obvious reason is that we eat a lot of frozen and prepared food this time of year.

Could there be some deep, psychological reason for these problems too? Like, in their heart of hearts, people are longing for fresh asparagus?

Until the garden season arrives, here are answers to some common cold-storage questions to help you through the last confines of winter.

**Q:** I always fix corned beef for St. Patrick's Day, but I have some questions. How long will corned beef keep in the refrigerator? In the freezer?

**A:** For best results, cook your corned beef right away. If that isn't possible, you can keep it about a week in the refrigerator. Remove the juice, and you can store it frozen for about a month. Longer freezing could lead to quality loss.

Corned beef has an interesting history. It gets its name from the way it was first preserved — before refrigeration. In those days it was dry-cured in coarse “corns” of salt.

Today brining — the use of salt water — has replaced the dry salt cure, giving a meat with the same name but less shelf-life.

Because it's made from less-tender beef cuts like the brisket, rump and round, it requires long cooking.

**Q:** One of the kids left the refrigerator door open a couple of inches last night. What should I do?

**A:** You get to play food detective. Your first clue is that sturdy foods like uncracked eggs, fruit juices, fresh vegetables, butter, margarine and hard cheeses will be fine. Jam, jellies, salad dressings, pickles and olives will be okay too.

Your second clue is that, to stay safe, refrigerated food must stay at 40° F or slightly lower.

With the door open all night, your refrigerator ran constantly to keep its temperature setting. So if it's set at 40 or somewhat lower and running properly, your perishable food is probably still cold enough to be safe.

Still you should check. If these foods are cold to the touch — as cold as in a closed refrigerator — most likely they are fine. Food stored in the back areas of the box should be fine.

Pay close attention to raw or cooked meats and casseroles sitting near the door. They could present problems. Remember the time-honored rule — when in doubt, throw it out.

**Q:** While we were away on vacation, the power went out in the house. Everything in the refrigerator/freezer spoiled. We threw it all out and scrubbed the appliance. But a terrible spoilage odor remains. How can we get rid of it?

**A:** Unfortunately, spoilage odors can be tough to eradicate. Try washing the freezer with a solution of baking soda and water. Sit an open box or dish of baking soda in the refrigerator for several weeks.

If the odor remains, crush several charcoal briquettes in a dish and leave that in the refrigerator for several weeks. If you can still smell the spoiled odor, leave an open dish of vanilla extract.

If nothing helps, the insulation inside the walls may have absorbed the odor and it will be impossible to remove.

**Q:** When I'm in a hurry, I open a can of food, take out what I need and put the can in the refrigerator. A friend says that isn't good. Is he right?

**A:** Yes, particularly as to quality loss. Refrigerating food in opened cans often leads to discoloration — you see this often with tomato products. Off-flavors can occur when oxygen from the air causes the product to react with the metal in the can.

Basically, the materials in a particular can are carefully chosen to withstand the processing that food receives in the plant and to protect it from bacteria, spoilage and loss of moisture and flavor. The can materials are not designed for refrigerator storage.

It's much better to store opened food in refrigerator containers.

**Q:** When I bring meat and poultry home from the store, I remove the store wrapping, wash it thoroughly and rewrap it before refrigerating or freezing. Is this a good idea?

**A:** It sounds as if you're trying to be extra-careful, but the truth is that every time raw meats are handled, you raise the chance for bacterial contamination. There could be staph on your hands or salmonella lurking somewhere in the sink.

A safer procedure is to leave the items in store wrap for refrigerator storage. For long-term freezer storage, add a second layer of heavy foil, freezer or plastic wrap.

What always need washing are your hands. Wash them well in warm, soapy water before food preparation.

Poultry should be washed in cold water right before cooking. That removes some surface bacteria. Pat dry with clean paper towels.

It isn't necessary to routinely wash red meat.

**Q:** I discovered a canned ham on my pantry shelf that says on the label “keep refrigerated.” I refrigerated it right away. Is the ham okay?



**A:** Sorry, the ham shouldn't be eaten. Canned hams that call for refrigeration are only pasteurized or semi-preserved. They're not shelf-stable and must be stored at refrigerator temperatures of 40° F or lower to prevent bacterial growth.

Properly refrigerated, they should stay at good eating quality for 6-9 months.

It's still important, though, to examine the can before you open it to make sure it doesn't have any bulges or rust spots. If you see either one of those danger signs, discard the ham.

**Q:** My understanding is that the refrigerator keeps food safe. But my daughter-in-law plans to serve a turkey casserole next week that will then be almost a week old. Will this overage casserole make us sick?

**A:** The recommended refrigerator storage time for cooked poultry is 3 to 4 days.

But if your daughter-in-law just prepared the dish, she'd be perfectly safe in freezing it, defrosting it in the re-

frigerator or microwave and reheating it to serve next week. For safe reheating, the casserole should reach 160° F in the center.

—Bessie Berry and Susan Templin

USDA's Meat and Poultry Hotline (1-800-535-4555) operates tollfree weekdays, 10-4, Eastern Time.



## Food Safety

### Inspecting the Mysteries of Chinatown's Markets

by Linda Russell

She'll take you on a tour of San Francisco's Chinatown that most tourists never see.

Her name is Sue Winkler and she is a compliance officer with the U.S. Department of Agriculture's Food Safety and Inspection Service. She is one of about 100 such officers throughout the country who work to make sure that meat and poultry products you buy are safe, wholesome, and properly labeled. Unlike meat and poultry inspectors, compliance officers normally deal with products *after* they leave the packing or processing plant.

Chinatown, the largest Chinese community outside the Orient, is known to tourists for the neon lights, restaurants and souvenir shops along Grant Avenue. It's just a few blocks from San Francisco's notorious Barbary Coast of the late 1800s, which was reduced to rubble by the 1906 earthquake and fire.

But Winkler focuses on the more day-to-day Chinatown, with dozens of small shops that scatter along Stockton and its winding sidestreets. Here, 80,000 Chinese crowd into 24 square blocks. Many of the signs are in Chinese only.

Winkler believes that most merchants and importers are honest. "However, when you have a high-priced, fast-moving product, you have a perfect chance for fraud," she says. Her job is to find the mistakes, intentional or not.

San Francisco is a city of many ethnic groups, Winkler explains. Small markets and ethnic specialties lend themselves to problems that huge supermarket chains never face, she says.

"Often, ethnic foods made in home kitchens find their way into markets without the benefit of inspection," Winkler says. While the dishes may be tasty and authentic, they can also harbor bacteria.

"At Half Moon Bay, about 50 miles down the coast, there are three custom-exempt operations," Winkler says. "These are butchers who are allowed to slaughter an animal for an individual's use, without federal inspection. The products cannot be sold at either the wholesale or retail level." Yet at times they are. Recently, Winkler found goat meat contaminated with hair and other material in a small market. She documented the violation.

"Also, we've recently had reports of fish maw or stomach from China that is really pork skins produced in this country," she explains. The Chinese like fish maw crisped into a snack that looks a lot like fried pork skins. That makes the deception possible. Still, all products should be accurately labeled as to contents and origin.

Winkler trots down a narrow alley. She notices marks along a drainpipe. A pungent smell invades both the alley and the small Chinese grocery. "Rats," she says, knowingly.

Winkler flashes her USDA badge. Three reticent clerks deny speaking English. A man emerges from the basement. "But the health department's been here three times already," he says, referring to the store's flooded basement. Winkler questions him about any meat or poultry products that were stored there — have they been properly disposed of?

Winkler continues her search. Across the street a Chinese pharmacy advertises such exotics as ginseng root, important in Chinese medicine. Almost all the faces along this street are Oriental. Old women hobble along with canes and shopping bags to get fresh produce for tonight's dinner.

Winkler stops at a small restaurant and carryout. It's the very first store she visited in Chinatown as a compliance officer ten years ago. Bins of dried chicken feet and gizzards lie exposed to the air. No labels, no mark of inspection. Definitely a violation. "Where did you get these?" she asks the manager. She's as interested in finding the supplier as in reporting individual stores.

The streets — and the shops themselves — are uncomfortably crowded. Nearby is a now-quiet alley that was notorious in the 1800s. On that lane still stands a temple to the goddess Tin How, once known as the protector of sailors, actors and harlots.

Small altars honoring the owner's ancestors stand in the back of most stores. Ducks hang in almost every window. "We encouraged the local health department to try to get rid of the ducks because the temperatures could allow bacteria to grow, but everybody got upset and the ducks are still there," Winkler says.

Winkler has learned enough Chinese to read the wrappers on frozen foods. She knows the symbols for meat, poultry, fish and other products. She wanders through grocery after grocery, showing her badge first, always polite.

She looks for damaged or bulging cans, for meat or poultry without labels of inspection or origin, and for frozen products that have started to deteriorate.

What happens when Winkler finds a violation?

"In some cases of suspected fraud or when a product is obviously unsafe, we can remove it from sale," Winkler says.



"Then we carefully gather evidence for a report which is processed through this area office and sent on to headquarters in Washington, D.C. After further review, final action is recommended. That could be, depending on the seriousness of the violation, a warning letter or legal action," Winkler explains.

A major part of her job — just as important as finding violations — is informing store and warehouse owners of the regulations and helping them meet the requirements.

Illustrating this, Winkler next visits one of her "success stories." It's a new shop. The owner previously rented space in a rat-infested warehouse.

"Good job," says Winkler. "I like your set-up. The equipment and freezer look good." The owner beams. It's hard to realize that Winkler has cited him for numerous violations in the past.

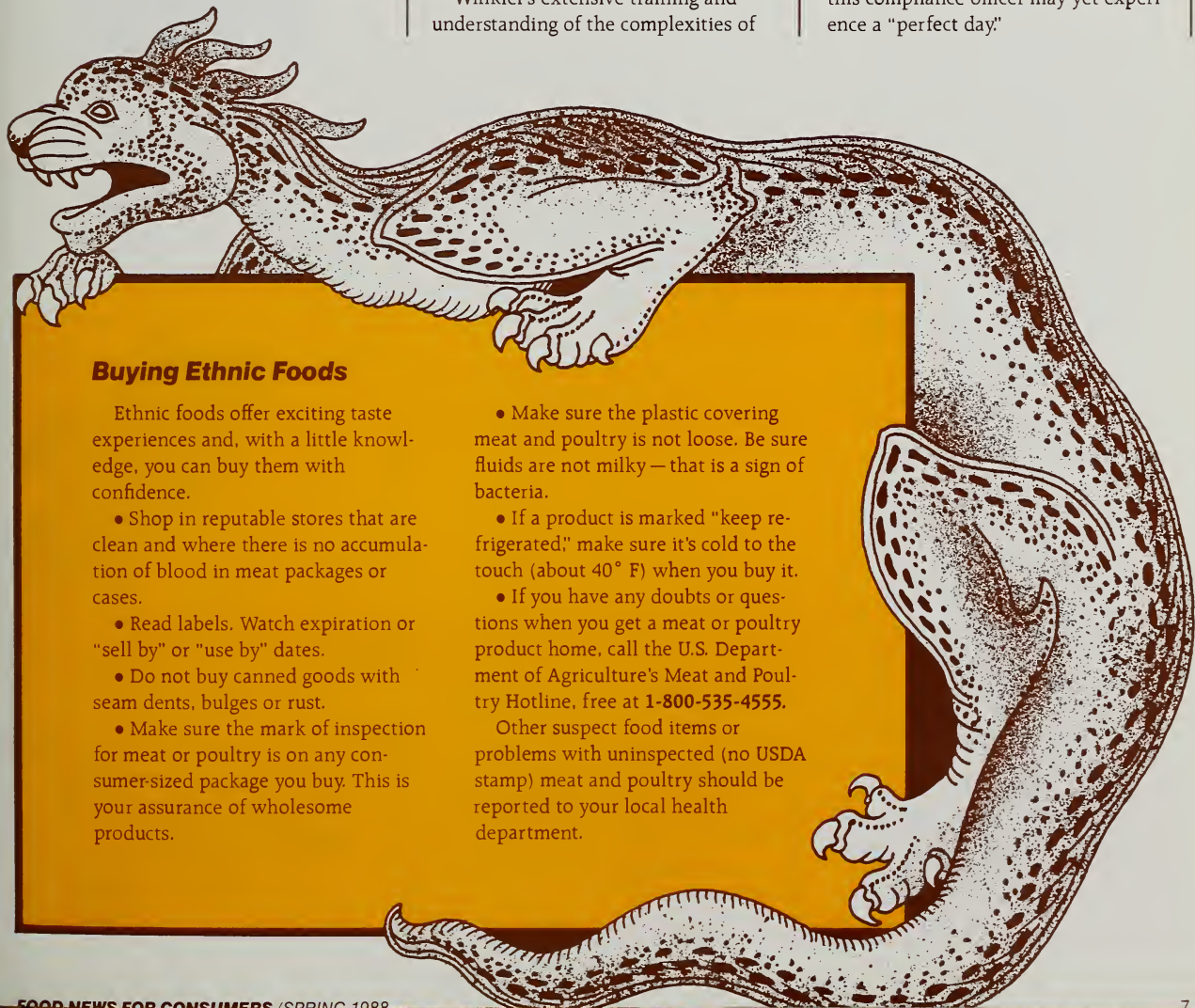
How does Winkler get "leads" to what's going on — where there is likely to be contaminated meat or illegal labeling? She doesn't give away all her trade secrets. But, after leaving Chinatown, she visits a rendering plant, where inedible meat is made into such products as bonemeal and tallow.

She asks where they're getting their animals, what people are selling hides on the market? Because, where there are hides, there is likely to be meat, perhaps meat making its way illegally into the human food chain.

Winkler's extensive training and understanding of the complexities of

meat and poultry processing is essential in her present job. She worked for almost five years in a Los Angeles slaughter house, and another five years in processing plants that made ham and sausage. Show her a slab of meat and she can probably guess what part of what animal it came from. This knowledge is behind her "sixth sense" for spotting something wrong in a store or warehouse.

What is this compliance officer's idea of a perfect workday? Winkler smiles, "I'd visit a dozen establishments and find all of them selling fully inspected meat, in sanitary conditions, with proper labels." This hasn't happened yet. So she continues to visit warehouses, stores and rendering plants, to urge her "clients" toward better food safety. Who knows, this compliance officer may yet experience a "perfect day"



### **Buying Ethnic Foods**

Ethnic foods offer exciting taste experiences and, with a little knowledge, you can buy them with confidence.

- Shop in reputable stores that are clean and where there is no accumulation of blood in meat packages or cases.
- Read labels. Watch expiration or "sell by" or "use by" dates.
- Do not buy canned goods with seam dents, bulges or rust.
- Make sure the mark of inspection for meat or poultry is on any consumer-sized package you buy. This is your assurance of wholesome products.

- Make sure the plastic covering meat and poultry is not loose. Be sure fluids are not milky — that is a sign of bacteria.

- If a product is marked "keep refrigerated," make sure it's cold to the touch (about 40° F) when you buy it.
- If you have any doubts or questions when you get a meat or poultry product home, call the U.S. Department of Agriculture's Meat and Poultry Hotline, free at 1-800-535-4555.

Other suspect food items or problems with uninspected (no USDA stamp) meat and poultry should be reported to your local health department.

## Special Features

### When An Older Person Needs Help in the Kitchen

by Mary Ann Parmley

It's widely known that, as the years roll on, many elderly people will need help running the kitchen. After all, it's a demanding job — shopping, cleaning out the refrigerator, preparing meals, storing leftovers.

What is not so well understood is that it can actually be *dangerous* for an older person who can no longer manage well to try to run a kitchen alone.

Why? Because the health of the elderly is often fragile. They're highly susceptible to food poisoning and prone to develop nutritional deficiencies. The sensory losses of aging — sight and smell in particular — can cause food handling problems. And tight budgets plus ingrained feelings against "waste" cause many elderly people to hang onto risky food too long. Let's take a closer look.

**Susceptibility to food poisoning.** The old are much more vulnerable to food poisoning than the general public. For one thing, less stomach acid — which helps digest food and kill microbes in food — is produced as the body ages.

Also, in ways that are not well understood, aging seems to weaken the immune system. So a food poisoning illness that might simply make someone else sick for a few days could be devastating for an elderly person.

And many elderly people suffer chronic conditions — heart disease, perhaps, or diabetes — which lower their resistance. Undergoing chemotherapy for cancer weakens the immune system.

**Nutritional problems.** Older people are likely to develop nutritional difficulties. For ease of preparation, they may be relying too heavily on canned

and frozen foods which can be oversugared or salted.

Their diets may be lacking in fresh meats, fruits and vegetables. They may suffer calcium deficiencies — particularly if they have trouble digesting milk, a condition which often develops in old age.

Eating and drinking improperly or infrequently can also precipitate serious medical problems, says nurse Liz Weiss, head of Home Care Support at Iona House, Washington, D.C.

Weiss explains, "Patients on diuretics for fluid retention can easily become dehydrated if they don't get enough liquids. And diabetics, who must be extra careful to avoid certain foods and eat regularly, can easily get into trouble."

**Food handling problems caused by aging itself.** There are, in addition, the problems attendant to aging itself. Consider sensory loss.

Basically, sensory loss means a diminished ability to sense and interpret one's surroundings with sharpness and clarity.

What goes wrong? Vision dims for one thing. Fifty percent of Americans with severe vision problems are over 65. Many older people also have trouble distinguishing between closely related colors, particularly blues and greens.

It's not surprising that someone who used to keep an immaculate kitchen may now have spots and spills everywhere, not recognize when a fork or pan is still dirty or notice mold on bread or other stored food.

Hearing fades. Actually, this is the most common problem of old age. Some 40 percent of those 75 and up suffer hearing loss.

Imagine how much harder it would be if you couldn't hear the teapot whistle that the water's hot. Or if you couldn't hear when something boils over.

Third, taste and smell dim. A recent Duke University study highlights this problem. In a test of common odors like chocolate, cinnamon, coffee, grape, onion, pepper, root beer, soy sauce and tea, college students cor-

rectly "named that smell" with 86 percent accuracy. Elderly subjects got only 34 percent of the answers right.

The side-effects of taste and smell loss are numerous. Some people lose interest in food and become malnourished. Others over-season food, taking in too much sugar or salt.

But, critical from the food safety standpoint, all those with significant smell loss will have trouble knowing when stored food is spoiled. Most spoilage agents, in addition to making food look bad, give off an unpleasant odor.

**Money problems and attitudes on waste.** Financial constraints add to the food handling problems of the elderly.



Living on a tight budget makes it hard to throw food away — even things in questionable condition. Plus, today's elderly are depression-survivors, and keenly conscious of "not being wasteful."

Consider USDA microbiologist Carl Custer's story about an elderly woman in his family. "The last time we went to Aunt Emma's," says Custer, "I was horrified to find her refrigerator set at about 55° F. For safety, it should run at about 40. When I asked her about it, as tactfully as possible, she said, 'Hate to waste electricity!'"

Now you know some of the things that can go wrong when an elderly person needs help in the kitchen. But how could you tell — in an actual sit-

uation — if someone you're caring for needs more help?

**How would you know when someone needs more assistance?** Chiefly, say case workers and visiting nurses, you want to be alert to any significant changes in household management.

"You may see dishes not cleaned up or things moldering in the refrigerator," says Liz Weiss.

"Food inventories might be off," says Marian Mathur, the nutritionist for the D.C. Visiting Nurse Association. "You know someone brought groceries in four days ago, but nothing's been touched. Maybe they're not eating."

"Sudden weight loss — perhaps again they're forgetting to eat — is another bad sign," continues Mathur.

Mental state should also be noted. Are they depressed? "Depressed people may not feel like cooking or eating," says Mathur.

A failure of time-orientation is another red flag. For instance, Mathur explains, "you always drop by at 4 p.m. on Saturday, but the individual seems amazed when you turn up then."

Recognize any of the signs?? Perhaps, but don't panic. While an emerging problem of this kind needs prompt attention, it needn't be defeating. See the "tips" chart for coping suggestions and groups that can offer help. And remember that for an individual problem, you can usually find a workable, individual solution.

## **TIPS — Avoid Trouble Before It Starts**

1. Be observant — Note any marked change in habits that could mean an elderly person needs more help in the kitchen.
2. Watch nutrition — Make sure they're getting the 4 basic food groups — protein, dairy, cereals & grain, vegetables & fruit. Note: pasta is a tasty, healthful, easy-to-eat food choice.
3. Shopping — Shop for 1 week at a time, favoring single-serving type purchases where feasible. Clear unused leftovers out of the refrigerator every other week.
4. Cooking & Storing — Help with cooking batches of several favorite foods. Package portions like TV dinners for later use. For example, a meal tray might include servings of meatloaf, macaroni-and-cheese and green beans.
5. The freezer — Date packages in large letters with marking pen. Move older packages forward as you add new items.
6. Drinks & snacks — If getting enough liquids is a problem, sug-

gest the use of the microwave for truly "instant" coffee and tea.

Keep a basket of fresh, soft, denture-friendly fruit handy too. Grapes, bananas and ripe pears are good.

7. Using an oven timer — For someone who's getting forgetful but still likes to cook, try a bright-colored portable timer.

One puts the casserole in the oven, sets the timer for 45 minutes and takes it along to watch the noon news. When the timer sounds, the casserole's done.

8. Jar & bottle opening helps — If hand strength and dexterity are a problem, you can compensate. Contact your local chapter of the Arthritis Foundation for information on gripper pads, cap poppers and other useful gadgets.

9. Equipment check — Make sure the refrigerator (safe at 40° F) and freezer (safe at 0° F) are running properly. A frosted-over unit won't cool properly, so defrost every few months as necessary.

New microwave? Go over adequate thawing, cooking and re-

heat times with the older person who'll be using the oven. Thorough cooking is a must for bacterial (food poisoning) control.

10. Lactose problems? Remember, cheese and yogurt, which don't bother most lactose-intolerant people, are good calcium stand-ins for milk. Many large stores now also carry specially treated milk suitable for those with lactose digestion problems.

### **Other Resources**

Write or call the American Association for Retired Persons, 1909 K Street, N.W., Washington, D.C. 20049, (202) 872-4700, for lists of publications and service groups.

Caring for a Cancer Patient? Order a free copy of *Eating Hints — Recipes and Tips for Better Nutrition During Cancer Treatment* from the Office of Cancer Communications, National Cancer Institute, Building 31, Room 10A18, Bethesda, Md. 20892. Phone: 1-800-4-CANCER.

Can that dish of leftover meatloaf be saved? Call USDA's Meat and Poultry Hotline 1-800-535-4555; in the Wash. D.C. area, call 447-3333.

## Health and Nutrition

### What's New in Foods?

by Hedy Ohringer and  
Liz Lapping

We're so used to newness that "What's New?" is a popular greeting. Change is everywhere. And, as any trip to the grocery will show you, it's also affecting food.

From a no-calorie supplement to pastry flour to slim chicken and "lite" steak, here's a report on new foods from the front lines of agricultural research.

#### No-Calorie Pastry?

Imagine being able to eat pastries and pancakes without worrying about calories! Plus, you'd get needed fiber! USDA has a new process that turns oat hulls, corn hulls, and other heretofore inedible plant parts into a no-calorie, high-fiber product that can replace up to 50% of the flour in baked goods and other foods.

Best of all, the additive doesn't change the taste, texture, or baking qualities of the product. "A loaf of white bread will retain the same color, size, and taste, but will have the fiber content of whole wheat bread," says Dr. J. Michael Gould at USDA's Northern Research Center, Peoria, Ill.

In fact, the mixture of two kinds of cellulose fibers actually makes foods moister. The substance is made by treating straw and stalks with hydrogen peroxide, which washes out the lignin (the woody portions of the plant). Removing the lignin makes it possible for people to digest the remaining fibers.

Contact: Dr. Michael Gould  
(309) 685-4011, x. 318

#### New, Different Peanut Spread

Believe it or not, there's something new from peanuts — George Washington Carver, inventor of myriad uses for the peanut, might even be surprised. It's a nutritious, low-fat peanut spread with a pudding-like consistency.

The new spread is made from raw peanuts — a money-saver for producers since peanuts must be roasted for standard peanut butter.

Food scientists Drs. Anna Resurreccion and Larry Beuchat have been working on this project for nearly two years at the University of Georgia's Research Experiment Station in Griffin.

They grind raw peanuts, remove the oil and mix with water for a slurry. They filter, collect the protein and sugar, and "press" to remove water. Then they add flavorings like chocolate or tangerine. Pasteurization renders the butter shelf-stable until open. Then it must be refrigerated.

Contact: Dr. Anna Resurreccion  
(404) 542-2151

#### Puffed Mushrooms

Mushrooms can now be explosion puff-dried by a government-patented process, stored for over a year, then restored for cooking — with flavor and texture intact. The process has the potential to expand mushroom sales and exports.

Uncooked, the mushrooms can be eaten as a tasty, nutritious, low-calorie snack. Light, crunchy and flavorful, they also make nice "croutons." Cooked in boiling water, they retain their flavor and texture.

Puff-drying of mushrooms is economical compared to conventional drying techniques — the new technique reduces the energy cost of drying by 40 percent. Also, it's considerably less expensive than costly freeze-drying.

And the new process allows mushrooms to be stored indefinitely. Extended storage would allow growers to retain part of their crop for later sale.

Finally, puff-drying is a nutritional alternative to canning where solids, vitamins, and amino acids are lost.

One company is already using this process to puff-dry carrots and is exploring the mushroom market.

Contact: Michael Kozempel, USDA,  
Eastern Research Ctr., Phila.  
(215) 233-6588

#### Low-Cholesterol, Low-Cost Beef

It looks, tastes, and feels like a steak but it's really texturized beef.

That's a new meat product invented by Oklahoma State University meat scientist, Dr. John J. Guenther.

Texturized beef, made from less expensive cuts of beef minus much of the connective tissue and bone, is re-formed in a steak-shape. The same process also produces re-formed roasts, beef nuggets or cubes for shish kabobs.

Texturized beef is a real wonder from the dietary standpoint. It's lower in cholesterol than cooked chicken, containing about as much as tuna. It contains less than six percent fat and has no added sodium.

"This product has the potential to get a lot of people back to eating beef, particularly those with high blood pressure, heart and circulatory problems. Older persons can also enjoy it, since it's quite tender and palatable," said Guenther.

Contact: Dr. John J. Guenther  
(405) 624-6886



### Lite Steak

USDA scientists have developed cattle that produce delectable steak with so little fat that a four-ounce serving has about the same amount of fat as a glass of two-percent milk.

To arrive at the new, lower-fat animals, Dr. Larry Cundiff at USDA's Meat Animal Research Center in Clay Center, Neb., has cross-bred Hereford and Angus stock with some 26 other breeds over the last 17 years.

While people used to think it took considerable amounts of fat to make meat tender and juicy, taste tests with consumers now show that as little as 3 percent fat in the marbling earns general acceptance.

Already used for "good" or "select" graded meats, the leaner cattle may be even more widely marketed soon.

Contact: Dr. Larry Cundiff  
(402) 762-3241

### Slim Chickens

You know that what you eat affects the size of your "spare tire." Now USDA scientists have found a way to reduce the chicken's "fat pad," a natural fat buildup in the chicken's abdominal area.

Although the fat pad is usually removed from chicken you buy, you pay for it anyway in total feed costs. So raising birds with a smaller fat pad would save money for both producer and consumer.

Restricting the food given to chickens for six days, USDA's scientists have raised bigger birds with less fat. Drs. John McMurtry and Norman Steele in the Agricultural Research Service, Beltsville, Md., found that by limiting the birds' diet from day 6 to day 12 after hatching, the fat pad could be reduced by 20 percent.

From day 13 on, the birds were fed normally. When marketed on day 56, the birds on the fat-pad shrinking diet were actually heavier than the "normal" group, but the weight gain was in meat.

Contact: Dr. Norman Steele  
(301) 344-2222



## Microwave Magic for Meat & Poultry

by Linda Russell

They cook meals quickly and easily, and over half of American households now have one. They're microwave ovens.

But what special steps should be taken to cook meat and poultry in them? The U.S. Department of Agriculture's tollfree Meat and Poultry Hotline (1-800-535-4555) gets many calls on this issue. Here are answers to some of the most frequently asked questions.

**Q.** I know cooking kills bacteria like salmonella in meat and poultry. What about microwaving?

**A.** With a microwave you risk uneven cooking, which can leave "cold spots." When thoroughly cooked, the thickest part of any beef or pork cut should reach 160° F for medium doneness; 170 for well-done. Poultry is thoroughly cooked when the fleshy parts reach 185° F.

Check your oven manual for time, power level and other concerns. Cook meat and poultry in a covered dish or cover with plastic wrap to produce steam heat, a better killer of bacteria

than dry air. Turn the dish a half turn several times during cooking.

Pay special attention to the number of minutes recommended for letting cooked food stand outside the oven before you serve it — this completes the cooking process.

**Q.** Can I cook a beef roast in my microwave, or is it just for heating up TV dinners?

**A.** Yes, and your roast can be even more tender than if you put it in the regular oven. The secret is to cook it slowly at a low temperature, and rotate it several times during cooking for even heating.

Also, remove large bones from the meat before cooking. Bone is dense and shields the tissue around it from microwaves.

Generally, ground meats do well in the microwave as do less tender cuts like chuck, stew meat or rolled rump roasts. Choose pieces that are even in shape, size and thickness.

Beef reheats well in the microwave too.

**Q.** Is it safe to cook pork in a microwave?

**A.** Since pork can contain parasites which cause trichinosis, a rare but serious disease, careful and thorough cooking is suggested.

To ensure the microwave doesn't leave uncooked "cold spots" in the pork, cover the dish tightly and turn it a half turn a couple of times during cooking. For larger pork cuts, use an oven cooking bag.

Finally, observe the correct standing time to complete cooking.

**Q.** Is there any meat that cooks better in a microwave?

**A.** Microwaved bacon won't shrivel up as much, is crisper and less greasy. Four average slices of bacon, placed between paper towels, will cook in about 3 minutes.

**Q.** How can I brown meats in a microwave?

**A.** If a large piece of meat will be in the microwave 10 minutes or longer, it will brown somewhat. For deeper browning, place microwaved meat under the broiler for a minute or two. Or try spices and sauces for a "browned" look.

**Q.** What's the best way to microwave a meat-and-vegetable casserole?

**A.** Microwaves conduct heat inward to the center of foods, so use a round casserole dish.

If both your meat and vegetables are raw, cut them into small cube-like shapes. Pre-cook the meat on a high setting for 5 minutes in ½ cup of water. Drain off that juice and add a clear ½ cup of water plus the vegetables.

To add fresh vegetables to leftover cooked meat, pre-cook the vegetables slightly.

The point is that for the meat and vegetables to be done at the same time, they must start off at roughly the same size and tenderness.

Stir the casserole and rotate the dish a half turn several times during cooking.



## News Wires

### Trichina-tested Pork Debuts

Sept. 1, 1987, was a red-letter or "gold banner" day for pork in the Washington, D.C. area as new "trichina-tested" products arrived in 14 local Safeway stores. The "Gold Banner" brand products may be debuting elsewhere around the country in 1988.

"Trichina-tested" means that the pork products, ranging from roasts and chops to ribs, have been tested by USDA's Food Safety and Inspection Service and show no signs of trichinosis-causing parasites. Trichinosis is a rare, but serious infection.

The products, marketed by the Lundy Packing Co., a North Carolina meat processor, can be identified by the terms "certified pork" and "trichina-tested" on the package labels.

The products are sold case-ready to Safeway. That means they're ready for sale with no further preparation. Storage life of the vacuum-packaged pork is about 15 days in the home refrigerator. If not used within that

time, the products can be stored in the freezer for several months.

Testing of pork products to assure that they are trichina-free is done through the "digestion" method, in which tissue samples are chemically digested and examined.

When testing shows no signs of trichina, the meat from that carcass can be packaged, without further processing, with a label stating "Certified Pork." Carcasses that fail the test are destroyed or cooked to render the trichina harmless. Then farms where the hogs were raised could be checked to find the cause of the problem.

The trichina testing program has been in development for several years, and was conducted in conjunction with the National Pork Producers Council, the North Carolina Pork Producers Council and Safeway.

Does this new pork look any different? It's vacuum-packed and may look a bit dark. But a normal pink color returns when the package is opened and the meat contacts oxygen.

"Certified pork" products can be microwaved safely without fear of trichina. But, remember, any pork must be thoroughly cooked to 160° F to kill other pathogens that might be present.

— Herb Gantz

### Chik-Chek Unreliable in USDA Tests

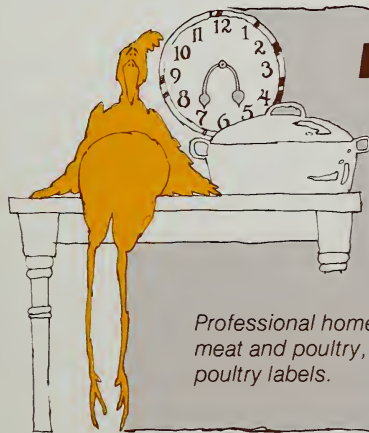
USDA's Food Safety and Inspection Service, which is responsible for ensuring a safe meat and poultry supply, has released the results of its lab tests on Chik-Chek, a mail-order bacterial test, to protect the public from misleading claims.

Promotional materials for the kit, reportedly now off the market, originally claimed that Chik-Chek could detect salmonella and other "dangerous" bacteria in raw meat, poultry, milk and eggs within 15 minutes.

"In extensive laboratory tests, we found Chik-Chek neither accurate nor useful," said Lester M. Crawford, administrator of the Food Safety and Inspection Service. "We announced our results because we were concerned about the potential for food-borne illness if consumers were to base food handling decisions on this test."

Chik-Chek gave both false negatives and false positives, Crawford explained. It even indicated that bacteria were present in sterile lab solutions.

(Continued on page 14)



## In A Stew Over Food Safety?

Call the USDA Meat and Poultry Hotline for food safety facts.

**1-800-535-4555** Washington, DC 447-3333  
10:00 am-4:00 pm Eastern Time

Professional home economists will answer your questions about proper handling of meat and poultry, how to tell if it is safe to eat, and how to better understand meat and poultry labels.



Continued from page 13

The test kit directed users to dip a chemically treated cotton swab in raw chicken juices, then in two solutions provided with the kit. If results are positive, the kit advised users to "thoroughly wash your hands, any utensils, plates, wash cloths or sponges that have come in contact with the poultry or juice."

"In fact, these steps should be routine after handling any raw meat or poultry," Crawford cautioned.

Crawford noted that studies of foodborne illness outbreaks show that common food safety mistakes contribute to the outbreaks because they allow bacteria to survive and multiply.

"This is why we focus our food safety education materials on the food handling practices most effective in destroying bacteria and preventing illness. These are sanitation, thorough cooking and reheating, proper chilling, and keeping raw meat and poultry from touching other foods,"

Crawford said.

Chik-Chek, manufactured by Diversified Diagnostics Industries of Moraga, Calif., entered the mail-order marketplace in the spring of 1987, in the wake of national publicity about salmonella. USDA evaluated 60 kits after receiving many inquiries about the test.

"Clearly it would be a great help if a rapid test to detect salmonella were available," Crawford said. The most rapid tests now available take about 2 days.

"Chik-Chek isn't the answer," Crawford concluded. "That doesn't mean that some entrepreneur out there isn't working on the answer right now."

—Sharin Sachs

## USDA Scientist Talks About Refrigerator-Resistant Bacteria

In the optimistic 1940s, says Dr. Samuel Palumbo, a microbiologist with the Agricultural Research Service in Philadelphia, most people thought the refrigerator was the final answer on safe food storage.

But in science, as in life, it's rarely true that you have a final solution to any difficult problem.

And by the mid 1950s, as Palumbo stated in a recent speech,\* it was obvious that refrigeration couldn't completely control the growth of food spoilage organisms. By then, various spoilage bacteria, yeasts and molds had been found growing in meat, fish, poultry and dairy products held at 41° F—a normal home refrigerator temperature.

So, although it was conceded that refrigeration merely postpones spoilage, it was still thought that refrigeration could prevent food poisoning agents from growing to dangerous numbers.

That belief died in the early 1960s, reports Palumbo, when a botulinum strain (Type E) was shown to grow and produce its insidious nerve toxin at 38° F.

Since that discovery, the list of food poisoning agents that can cause trouble under refrigeration has multiplied.

Today we know that several tongue-twisters will grow under refrigeration: *E. coli*, *Yersinia*, *Listeria* and *A. hydrophila*.

Listeria outbreaks from refrigerated milk, cheese and ice cream have made the headlines in the last year or two.

What's to be done? Palumbo advises both food processors and consumers to be aware that "foods of animal origin may become hazardous with extended refrigerated storage." "Extended" storage means keeping something long past its normal refrigerator-life at home, or holding products in commercial storage for months at a time.

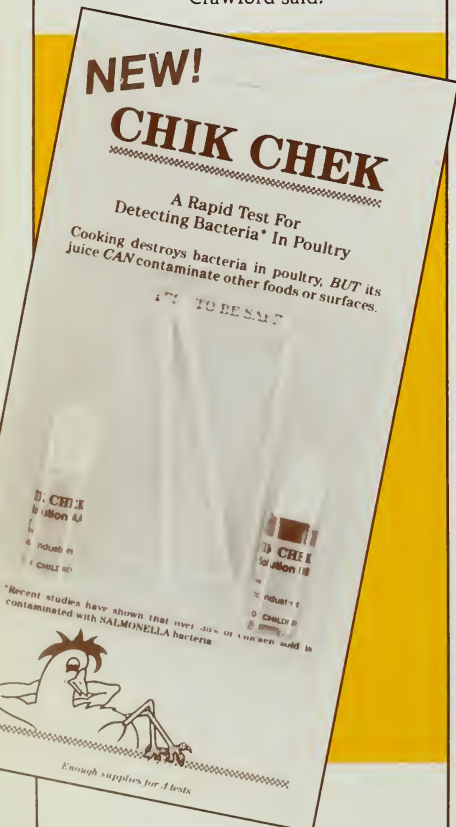
To assess any threat listeria might pose to meat and poultry products, USDA's Food Safety and Inspection Service, which handles their inspection, began monitoring for listeria in cooked beef last September.

To date, there have been no reports of listeria-caused illness from meat or poultry products, but the bacteria is so widespread in the environment that the agency wanted to take every precaution.

Early monitoring is focusing on ready-to-eat items like roast and cooked beef that could be eaten without further cooking. Items that will be cooked are in a much lower-risk category, since thorough cooking to 160° F for red meat and 180° F for poultry kills the listeria bacteria.

—Mary Ann Parmley

\*"Is Refrigeration Enough to Restrain Foodborne Pathogens?" S.A. Palumbo before the International Association of Milk, Food and Environmental Sanitarians, Anaheim, Cal., Aug. 2-6, 1987.





## The Children's Page

### You Can Bake Bread

by Irene Goins

Freshly baked bread is a treat anytime. Two slices with leftover ham, lettuce, tomato and cheese make a great sandwich.

Try this fun recipe for making fresh whole-wheat bread in a bag. It's for the young cook who doesn't want sticky, gooey hands.

#### What You Need

Whole-wheat flour — 3 cups

Yeast, dry — ½ package

Salt — ¼ teaspoon

Dry milk — ½ cup

Water — 1 cup

Margarine — 2 tablespoons

Honey — 2 tablespoons

#### What You Do

**1.** Wash your hands and all utensils with hot, soapy water. That gets rid of germs. Wash and dry your measuring cup and spoons, a mixing bowl and a 9 x 5" loaf pan. You also need a fresh, 1-gallon freezer bag, a candy thermometer and a clean dish towel.

**2.** Mix yeast, dry milk, salt and 1 cup of flour in the freezer bag. Put the rest of the yeast in the refrigerator.

**3.** Warm water to 90° F. Check the temperature with the thermometer. Add honey. Pour into bag.

**4.** Squeeze any air from bag and tie it shut. Mash ingredients together with your fingers. Slowly add more flour and work dough until it forms a ball.

**5.** Clean the counter and sprinkle flour on it. Grease your hands with a little margarine. Take the dough from the bag and place it in the floured area. If the dough is too sticky, add more flour. Knead dough by folding, pushing and turning. Add margarine — a little at a time, and continue kneading dough for 10 minutes until it is smooth and stretchy.

**6.** Shape dough into a ball and place in a greased bowl. Cover the bowl with the towel. Let dough rise for 10 minutes.

**7.** Wash and grease hands. Press dough down, knead and shape it to fit into the greased loaf pan. Cover loosely with towel. Let dough rise in warm place for one hour. It should double in size.

**8.** Ask for help with turning on the oven. Preheat oven to 375° F.

**9.** Uncover dough and bake until crust sounds hollow when tapped. Cool and slice. Makes 14 slices.

#### For Sandwiches

Spread mayonnaise or mustard on two slices of bread. Add leftover sliced ham. Put the rest of the ham back in the refrigerator. Germs can grow fast on ham if it's left out of the refrigerator for 2 hours or more.

**PARENTS, TEACHERS.** Young cooks may need help handling dough, gauging rising times. ■

#### What makes bread rise?

It's the yeast. When yeast is mixed with warm water or milk, it bubbles. Dough is stretchy and traps the tiny bubbles. That's what makes bread rise. Can you see the bubbles in a slice of your bread?



Sherie rolls the dough.

United States  
Department of Agriculture  
Washington, D.C.  
20250

OFFICIAL BUSINESS  
Penalty for Private Use, \$300



Postage and Fees Paid  
U.S. Department of Agriculture  
AGR-101

**ORDER FORM** To: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

Enclosed is \$ \_\_\_\_\_  check,  
 money order, or charge to my  
Deposit Account No.

\_\_\_\_\_-\_\_\_\_

Order No. \_\_\_\_\_

**Credit Card Orders Only**

Total charges \$ \_\_\_\_\_ Fill in the boxes below.

Credit Card No. \_\_\_\_\_

Expiration Date  
Month/Year \_\_\_\_\_

Please enter my subscription to **FOOD NEWS FOR CONSUMERS**  
at \$5.00 (domestic) or \$6.25 (foreign) per year.

Company or personal name \_\_\_\_\_  
Additional address/attention line \_\_\_\_\_  
Street address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_  
(or Country) \_\_\_\_\_

For Office Use Only	
Quantity	Charges
_____	Enclosed
_____	To be mailed
_____	Subscriptions
_____	Postage
_____	Foreign handling
_____	MMOB
_____	OPNR
_____	UPNS
_____	Discount
_____	Refund

**PLEASE PRINT OR TYPE**